Geophysical Research Letters

Supporting Information for

Recurring large deep earthquakes in Hindu Kush driven by a sinking slab

Zhongwen Zhan[1] and Hiroo Kanamori[1]

[1]Seismological Laboratory, Division of Geological and Planetary Sciences, California Institute of Technology, 1200 East California Blvd, Pasadena, CA 91125, USA.

Contents of this file

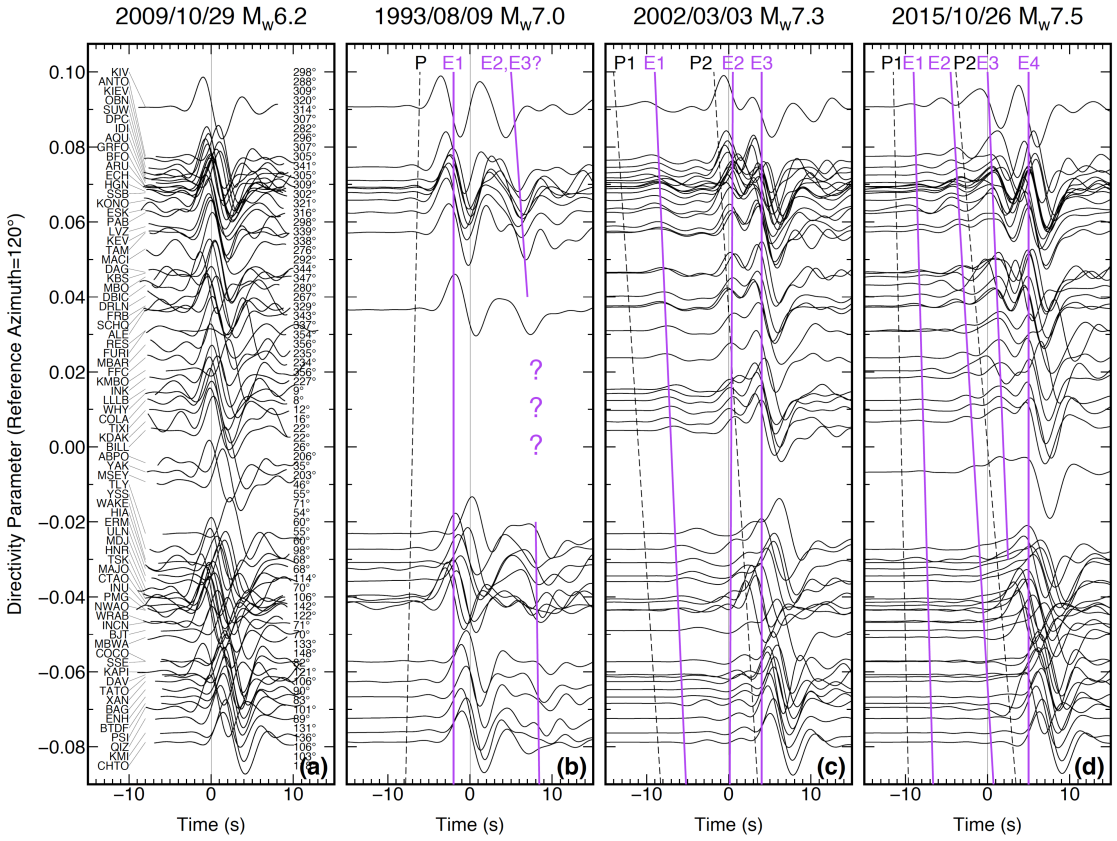

Figure S1. Directivity plots of the 2009 reference event, the 1993 M7.0, 2002 M7.4, and 2015 M7.5 events. The same as Figure 3, except that the waveforms are aligned based on predicted P arrival times without path corrections.

yyyy-mm-dd	Dep(km)	Strike/Dip/Rake	Mag	Subevent	Time(s)	Lon(°)	Lat(°)	Mag
1993-08-09	210	106/67/96	7.0					
				E1	5.830	70.724	36.361	6.77
				E2	10.989	70.848	36.568	6.69
				E3	13.429	70.726	36.517	6.53
2002-03-03	215	110/69/92	7.3					
				E1	-6.331	70.528	36.495	6.60
				E2	0.558	70.774	36.430	6.75
				E3	3.615	70.726	36.390	7.22
2015-10-26	210	106/69/90	7.5					
				E1	-7.097	70.656	36.355	6.37
				E2	0.990	70.288	36.470	7.03
				E3	3.916	70.433	36.420	7.25
				E4	6.017	70.715	36.345	7.21

Table S1. Earthquake source parameters and subevent models for the 1993 M7.0, 2002 M7.3, and 2015 M7.5 Hindu Kush earthquakes. The event depths and focal mechanisms are determined by Cut-and-Paste (CAP) inversions, and the subevent models are derived in Section 4 of the main text.